

## Tricks of the Trade

In this column we will try to discuss the little facts and bits of knowledge about Sinclair hardware and software that may have fallen through the cracks in the floor boards.

Here is a tid-bit that many of us may have forgotten or did not even know about:

Any of the Pixel Print icons can be loaded into and used by the Zebra Systems Greeting Card Designer program without modification to the program!

The only thing needed to be done in order to load Pixel Print icons into your Greeting Card is to save each of your Pixel Print icons (using the Pixel Print Icon Manager) with a .G at the end of the name. The extension .G must be added because Greeting Card Designer always looks for the .G to designate an icon.

But what if you have already spent an hour saving icons out to tape without the .G? Well, fear not! There is hope, and it is in the form of a slight modification to the Card program itself. First, load the Card program and BREAK it at the Main Menu. Next, list line 550. This is where we need to remove the +".G" from the LOAD

See Icons, next page

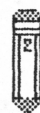
Notice-----Notice

→ The next meeting of ISTUG will be Saturday August 27th at 1:30p at the Cleveland Fest. ←

## Indiana Sinclair-Timex Users

### News Letter

JULY 1988 Editor-Mike Felerski



## ISTUG Makes The Grade

If you are a subscriber to Time Designs Magazine I am sure that you already know that the May/JUNE issue got out a little late...but it was well worth waiting for. This month's issue was dedicated to Timex-Sinclair users groups. All of the known 55 active groups were listed along with standard information about each group. In addition to this, TDM also compiled a list of the Top Ten Newsletters.

First place went to The Hacker the newsletter of the Las Vegas TS Users group. But more important was that the ISTUG Newsletter tied for 9th place with SINCUS NEUS. The issue submitted was from April 1988 which was edited by Frank Davis.

Considering that our newsletter has only been in existence for less than two years as compared to many of the other TDM Top Ten, I feel we should give Frank Davis as well as all of our supporting members a big round of applause.

But coming in 9th is only going to make us work harder to produce even better newsletters in the future, and as always, we need the support of our members.



## Command of the Month...

TS1000 PAUSE Command

Command:

PAUSE 40000

Result:

Halt execution until a key is pressed.

(Equivalent to TS2068 PAUSE 0 Command)

## Icons from front page,

command. Then make the same change to the next line, 551 (to keep things consistent). Now execute a GOTO 9990 to save your custom copy. And now you can load any icon with any name into the Greeting Card Designer. Oh, and by the way, the same methods can be applied to Zebra System's Sign Designer too!

P.S. Zebra Systems plans to attend the Cleveland Fest later this month with their usual van load of hard and software goodies.

Zebra Systems Inc.  
78-06 Jamaica Ave.  
Woodhaven, NY 11421  
(718) 296-2385



## Bits &amp; Pieces

Make sure when you are buying home owners insurance that your Sinclair is covered! Many of the insurance companies cover computers and peripherals, but you must supply the company with a list of equipment. And remember, rate each items value at its replacement cost.

RMG Enterprises is rolling out a brand new catalog very soon according to Rod Gowen, owner. The catalog will contain many new and classic Sinclair hardware and software items. The cost of the new catalog is \$3.00 and if you send in several large self addressed stamped envelopes, you will also receive any updates for the catalog.

RMG has also had several new advertisements in the latest Time Designs Magazine. One item is a TAROT card program for the TS2068. In an interview, Rod told me that the graphics are professional and both cards and their meanings can be printed to a TS2040 compatible printers.

Another program available from RMG is a Yahtzee (C) type dice game called Yacht.

For more information on products from RMG, call Rod at:

(503) 655-7484

Or you can write to:

RMG Enterprises  
1419 1/2 7th Street  
Oregon City, OR 97045



## Solution

To the Traveling Salesman Program  
(See June Issue)

Here is the BASIC program solution to the traveling salesman program article from last month's issue.

The variable R is a two dimensional array that holds all of the distances between cities (nodes) and C is an array that holds the number of Roads (or paths) connected to each city.

Lines 100-240 initialize the arrays to zero.

Lines 300-320 print information on running the program.

Lines 400-510 contain the input loop for entering the path distances between cities. It uses capital letters for the node names, then subtracts 64 from the characters value to obtain a valid array subscript. Thus A would equal 1, B equal 2, etc.

If you are using a TS100 type system then you would want to subtract a value of 37 instead.

Lines 700-710 just ask for the maximum path length. This could be calculated, but I decided to keep the program short.

Lines 800-895 search through the array(s) for a match with our criteria, and prints out the total distance traveled at the end of execution.

Lines 900-940 are a subroutine called by Line 840 when we have a match. This routine increments the total distance traveled variable, updates the array containing the number of paths currently connected to each node and displays the path on the screen.

This is one way of coding the program. It is simple and it works. Many enhancements can be added including finding the maximum distance without prompting the user or allowing the program to work with any number of cities and roads. You may even wish to graph the path on the screen when your finished.

```
10 rem travel program
20 dim r(9,9)
30 dim c(9)
100 for i=1 to 9
110 let c(i)=0
120 next i
200 for i=1 to 9
210 for j=1 to 9
220 let r(i,j)=0
230 next j
240 next i
300 print "Enter From and To city
and Distance between."
310 print "Enter @ to end input a
t From: prompt."
320 print
400 print "From City: "
410 input c$
420 let i=code(c$)-64
430 if i=0 then goto 700
```

```

440 print "From City:  "
450 input c$
460 let j=code(c$)-64
470 print "Distance is:  "
480 input distance
490 let r(i,j)=distance
500 let r(j,i)=0
510 goto 400
700 print
710 print "What is your maximum d
istance?"
720 input maxdist
730 print
800 distance=0
810 for k=1 to maxdist
820 for i=1 to 9
830 for j=1 to 9
840 if (r(i,j)=k) and (c(i)<2) a
nd (c(j)<2) then gosub 900
850 next j
860 next i
870 next k
880 print
890 print "Total Distance Travele
d:  ";distance
895 stop
900 let distance=distance+r(i,j)
910 let c(i)=c(i)+1
920 let c(j)=c(j)+1
930 print "Use Path From ";chr$(i
+64); " To ";chr$(j+64)
940 return

```

Now that you have the program to solve the Traveling Salesman problem, can you get the salesman back home via the shortest path and/or minimum cities?

#### ---Editor's Note---

Due to space limitations in this issue, the Pascal version of the above program could not be published. If you are interested in a listing of the Pascal program, send a self-addressed, stamped envelope to:

Bottle Cap Software  
1284 Brushwood Ave.  
Cincinnati, OH 45224

#### Don't You Miss .....

The 1988 Midwest Timex and  
Sinclair Computer Conference

Saturday & Sunday  
August 27th and 28th

At The  
Beck Center For The Arts  
1781 Detroit Ave  
Lakewood, OH

Details on Timelines BBS, 216-671-6922

And make sure to stop and visit  
the I.S.T.U.G. Display Tables!!



# STUG

the Indiana  
Sinclair Timex Users  
Group is a Not For Profit  
Group dedicated to the  
educational use of Sinclair and  
Timex-Sinclair Computers, for  
both the hobbyist and the  
professional user. We aim to do  
this by keeping members informed  
of sources for software,  
peripherals, computer shows,  
seminars and other educational  
events.

We try to keep members aware  
of other sources of program  
listings and tips, by means of  
providing a newsletter 11 times  
a year for members, providing  
other newsletters obtained by  
user group swaps, and providing  
a library of programs that are  
public domain to all full  
members. **Full Membership \$10.00**  
and **Associate \$7.50** a year.

Membership is offered two ways  
(1) Full membership, which  
entitles a member to all of the  
above, plus the full technical  
support of the other members on  
both hardware and software, and  
the opportunity to attend  
meetings which are held eleven  
times a year, usually on the 4th  
Saturday of the month at 1:30pm.  
On months when a major holiday  
falls that weekend, the meeting  
will be on the 3rd weekend.  
There is no December meeting.  
(2) Is Associate membership,  
which entitles you to the  
newsletter (in which any member  
may place free ads) and full  
support.

I.S.T.U.G.  
513 East Main St.  
Peru, IN 46970



## Classifieds

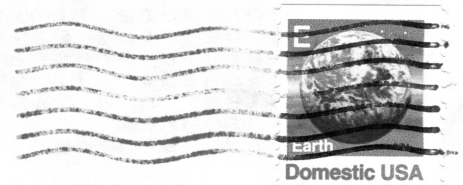
Wanted: Memotech and Byte-Back  
hardware for the 1000  
and 2068. Write Mike  
Fellerski, c/o Bottle  
Cap Software, 1284  
Brushwood Ave.  
Cincinnati, OH 45225

Wanted: Multiface One for  
Spectrum Wafa Drive.  
Frank Davis  
c/o ISTUG, 513 East  
Main St., Peru, IN  
46970.

Remember all ISTUG members  
can advertise items for sale  
or items wanted for free!!



MIKE FELERSKI  
2110 1/2 PARNELL AVE.  
FT. WAYNE, IN 46805



DON LAMBERT  
3310 CLOVER DRIVE S.W.  
CEDAR RAPIDS, IOWA 52404



```

9900 OVER 0: INVERSE 0: BRIGHT 0: FLASH 0: BORDER 7: PAPER 7: INK 0: CLS
9901 LET a=VAL "PEEK 23635+256*PEEK 23636"
9902 LET c=NOT PI: LET y=VAL "175": LET x=VAL "130"
9903 LET l=PEEK (a+1)+256*PEEK a: LET a=a+4
9904 IF l>=9900 THEN GO TO VAL "9948"
9905 PRINT l;TAB 5;CHR$ PEEK a: LET c=c+2: PRINT
9906 PLOT x,y: LET b=PEEK a
9907 IF b=226 OR b=234 OR b=242 OR b=254 THEN GO TO 9923
9908 IF b<227 AND b<231 OR b=232 OR b=235 OR b=241 OR b=247 OR b=249 OR b=253 THEN GO TO 9924
9909 IF b=CODE " NEXT " OR b=CODE " IF " THEN GO TO 9925
9910 IF b=CODE " GO TO " OR b=CODE " GO SUB " THEN GO TO 9933
9911 DRAW 16,0: DRAW -4,-8: DRAW -28,0: DRAW 4,8: DRAW 12,0
9912 LET y=y-8
9913 IF b=226 OR b=236 OR b=237 OR b=254 THEN GO TO 9915
9914 PLOT x,y: DRAW 0,-7: DRAW 4,4: DRAW -4,-4: DRAW -4,4
9915 LET y=y-8
9916 LET b=PEEK a: IF b=34 THEN GO SUB 9951
9917 IF b=14 THEN LET a=a+4
9918 IF b=13 THEN GO TO 9921
9919 IF b=CODE ":" THEN GO TO 9939
9920 LET a=a+1: GO TO 9916
9921 IF c=22 THEN GO TO 9942
9922 LET a=a+1: GO TO 9903
9923 DRAW 12,0: DRAW 4,-8,-PI: DRAW -24,0: DRAW -4,8,-PI: DRAW 12,0: GO TO 9912
9924 DRAW 16,0: DRAW 0,-8: DRAW -32,0: DRAW 0,8: DRAW 16,0: GO TO 9912
9925 DRAW 8,-4: DRAW 8,0: DRAW -4,4: DRAW 4,-4: DRAW -4,-4: DRAW 4,4: DRAW -8,0: DRAW -8,-4: DRAW -8,4: DRAW 8,4
9926 IF b=243 THEN GO TO 9932
9927 LET a=a+1: LET f=PEEK a
9928 IF f=14 THEN LET a=a+4
9929 IF f<>203 THEN GO TO 9927
9930 LET a=a+1: LET f=PEEK a: PRINT AT c-2,19;CHR$ f: PRINT
9931 IF f=236 OR f=237 THEN GO TO 9934
9932 GO TO 9912
9933 CIRCLE x,y-4,4: PLOT x+4,y-4: DRAW 64,0: DRAW -4,4: DRAW 4,-4: DRAW -4,-4: PLOT x,y
9934 LET a=a+1: LET f=PEEK a
9935 IF f<>14 THEN GO TO 9934
9936 LET a=a+3: LET g=PEEK a+256*PEEK (a+1)
9937 PRINT AT c-2,26;g: PRINT
9938 GO TO 9912
9939 IF c=22 THEN GO TO 9942
9940 LET a=a+1: PRINT " : ";CHR$ PEEK a: PRINT : LET c=c+2
9941 GO TO 9906
9942 PRINT #0; INVERSE SGN PI;" PRESS ""V"" TO VIEW: ""P"" TO PRINT "
9943 IF INKEY$="v" THEN GO TO VAL "9946"
9944 IF INKEY$="p" THEN INPUT ;: COPY : GO TO VAL "9946"
9945 GO TO VAL "9943"
9946 CLS : LET d=0: LET e=22: LET c=d: LET x=130: LET y=175
9947 IF PEEK a=CODE ":" THEN GO TO 9940
9948 IF l>=9900 THEN PRINT #0;" End of Basic Program": PAUSE 0: STOP
9949 GO TO 9922
9951 LET a=a+1: LET b=PEEK a: IF b=34 THEN RETURN
9952 GO TO 9951

```

#### FLOW CHART

This is a basic setup. Run it after you have MERGED it with another program  
 It needs work to make it operate with computed GO TO/SUB and variable names  
 Can you make it handle those occurrences?

# SOME SPECIAL INTEREST BBS'S

CUFON .....	206-722-5738
PHOTOCOM.....	415-752-5615
PICKHAM'S (POINT SPREAD ON SPORTING EVENTS).....	213-613-8831
INVENTORS + AUTHORS BBS.....	817-430-3768
COLLECTORS NET .....	213-284-8646
LOONEYBIN (VIETNAM VETS BBS).....	408-293-7894
73 RBB5.....	603-924-9889
ECONOMIC BBS.....	202-377-3870
.....	202-377-8433
POPULATION ESTIMATES BBS (TYPE 'RUN' AT LOGON) ....	301-763-5225
CMIC BBS (CENSUS).....	301-763-4576
MEIE BBS (MICRO USERS BY DEPT OF COMMERCE).....	301-948-5718
CRYPTO BBS (18:30-7:30 EST MON-FRI, 24 HRS WK ENDS) ..	703-237-4322
NEW TECH TIMES.....	608-263-2784
PYSCHIC CONSULTING.....	303-428-8177
ADG BBS.....	216-745-7855
CHIPS BBS (FIDO).....	216-929-8483
GENEALOG (GENEALOGY).....	614-488-4736
RADIO + ELECTRONICS BBS.....	516-293-2283
NOAA BBS.....	303-497-5000
CIME-ISE (MECH ENGRG BBS).....	608-233-3378
WCUE BBS (BIBLE ORIENTED).....	216-923-9762
CATHOLIC INFO NET.....	415-387-3251
HARE KRISHNA BBS.....	312-743-7729
RATIONAL BBS (HUMANIST).....	615-455-8623
JA CO BBS (JEWISH...24HRS EX SABBATH, PSWD=NEW)....	718-854-6275
SEVEN RAY INSTITUTE (ASTROLOGY).....	201-659-3263
AVIATOR'S EXCHANGE.....	707-546-4721
WORLD PEACE.....	303-328-4822
MARICOPA COUNTY SHERIFF.....	602-256-1689
FIRECOMM.....	216-666-8386
RAILNET (RAILROAD HOBBISTS).....	216-883-6298
HAMNET.....	216-942-6382
F/8 .....	216-235-9526
TELCOR CORP (YELLOW PAGES).....	800-223-5541
BOISE POLICE BBS.....	208-323-8626
BROADCASTER'S BBS.....	602-934-4999
THE BETA RBB5 (AUDIOPHILE).....	213-393-9777
MEN INFO NETWORK (DIVORCE ETC).....	813-785-3243
DEMO BBS (SOFTWARE DEMOS).....	904-396-3864
TIME SCAN (AI ORIENTED).....	318-396-9831
TRAVEL ONLINE.....	314-625-4854
US TELECOM SYSTEM (ASCII AND PRESTEL).....	212-925-8843
HOST (HANDICAPPED & DISABLED).....	518-793-9574
S&M EXCHANGE (ADULT, FEE).....	401-944-4689
WORDWORKS (POLITICAL).....	803-798-1225
FREE FORM (LEGAL).....	313-774-7258
ANARC (SWL BBS).....	509-534-6866
THE DEAD BBS (GRATEFUL DEAD FANS) .....	717-677-9573

VOICE INFORMATION FOR PC PURSUIT IS 1-800-TELENET

THIS IS ONLY A VERY SMALL NUMBER OF BBS'S THAT EXIST AND MOST  
TELEPHONE NUMBERS ARE THOUGHT TO BE CURRENT AS OF 3/17/88